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Farmland Preservation in Scott and Dakota Counties

Prepared in partnership with
Farmer's Legal Action Group (FLAG)

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Farmland Preservation in Scott and Dakota Counties

A collaboration between the Farmer's Legal Action Group (FLAG) and the University of Minnesota's Center for Urban and Regional Affairs (CURA)

Colin Cureton
March 1, 2011

Introduction & Summary

Agriculture in Minnesota has, as in much of the country, been going through a tumultuous transition. The loss of the small farm is a common story, as is the tendency toward agricultural consolidation and a general loss of farmland due to development pressure. Amidst these changes, land use and agricultural preservation policies are also put in place at the State, county, township, and local levels. Some of these policies encourage development, some attempt to preserve farmland and succeed, and others attempt to preserve farmland but fall short. The following section examines the changes in the agricultural land bases of Scott and Dakota Counties, two of seven counties in Minnesota's Twin Cities metropolitan area. This comparison is useful given their geographic proximity, similar development pressures, similar agricultural land bases, yet divergent local land use and agricultural preservation policies. While future analysis should connect the transitions in agriculture to the local agricultural preservation policies, the primary purpose of this report is only to identify the agricultural transitions themselves.

First, a brief introduction is given to each county and their respective land use and agricultural preservation policies. Next, statewide data based on satellite photography from 1990 and 2000 are analyzed. The second analysis section examines Geographic Information System (GIS) data sets for 2005 and 2010 in both counties. Greater detail is given to these years, including an analysis of changes in land area, number of parcels in agriculture, average agricultural parcel size, and loss of agricultural parcels based on parcel size. Finally, both time periods are tied together to examine the shifts in agriculture experienced by both counties over the past 20 years.

Overall, total agricultural land declined in both counties during both time periods. Between 1990 and 2000 the counties lost between one-quarter to one-third of their agricultural land and saw corresponding increases in total urban land cover. Both trends were greater in Scott County relative to each county's overall land base. Between 2005 and 2010 total agricultural land area continued to decrease, as did number of agricultural parcels, and average parcel size increased. Whereas Scott County lost 13% of its agricultural parcels and 5% of agricultural land, Dakota County lost 22% of agricultural parcels but only 2% of agricultural land. This imbalance in Dakota County between number of parcels and overall land lost is the result of a steep loss in the smallest agricultural parcels (those less than 5 acres in size). This suggests a divergence between Scott and Dakota counties in which both are losing similar percentages of agricultural parcels but Dakota County is stemming the loss of its overall agricultural land area. Furthermore, the analysis of agricultural loss by parcel size shows a loss distributed across several parcel size categories in Scott County, whereas parcel loss in Dakota County were greatest by far in the smallest parcel size category (0-5 acres). Despite this divergence, the total area lost was concentrated in larger categories due to each parcels overwhelmingly larger size (i.e. losing one 200 acre farm is equivalent to losing twenty 10 acre farms).

Finally, while future research on demographic, economic, and development trends is suggested to bring greater context, this analysis suggests that local land use and agricultural preservation policy are one possible factor in explaining these changes in agriculture.

Methodology & Data

Two sets of secondary data were analyzed in producing this report. The first section utilizes a web-based set of maps and charts made available by the Minnesota Geospatial Information Office consisting of interpretations of aerial photography taken in 1990 and 2000.¹ The aerial photographs were taken by the Landsat satellite, whose scanner records digital images of the surface reflectance in visible and infrared wavelengths of the electromagnetic spectrum. The smallest area recorded is a ground resolution cell or pixel in the imagery measuring 30 x 30 meters, or about one-quarter acre. Each pixel was subsequently classified under a particular land cover category. It is important to note that these classifications are interpretations of satellite imagery based on a number of criteria regarding each pixel's surface reflectance. Therefore, these maps and the changes in land use they represent may vary significantly from other analyses derived from data that determine agricultural area, for example, by entire parcels and how they have been assessed for tax purposes. Nonetheless, this dataset provides consistent methods at the statewide and county level, thus making it a useful tool for the time period in question.

The second section utilizes the MetroGIS Regional Parcel Data Set for both counties in 2005 and 2010. These datasets were procured from the Metropolitan Council by way of the University of Minnesota's Center for Urban and Regional Affairs. The primary field examined was the Land Use field. Though coded differently in the GIS data sets for each county, both fields were ultimately determined by each parcel's tax assessment classification. In Dakota County the different values in this field stayed relatively consistent between 2005 and 2010.²

In Scott County, a new classification system was implemented by assessors between 2005 and 2010. Since 2008, a GRM class code has been assigned to each parcel, with each GRM code incorporating one or several tax classifications. Furthermore, a parcel can be assigned multiple GRM classes (i.e. 200 Agricultural/300 Commercial). This analysis aggregates all 2010 parcels with the '200 Agricultural' GRM class code

¹ More information on how satellite images were interpreted and how maps were created can be found at <http://land.umn.edu/methods/index.html>

² The four agriculture-related values consolidated in this analyses are 'AG', 'AG-AG PRESERVE', 'AG HOUSE GARAGE 1 ACRE', and 'AG HOUSE GARAGE 1 ACRE-AG PRESERVE.' These values are generalized in plain language after organizing parcels by Assessment Code. 'AG' parcels include Assessment Code F1, 'AG-AG PRESERVE' parcels include Assessment Code F1 with a zone of A, 'AG HOUSE GARAGE 1 ACRE' indicates parcels with Assessment Code F, and 'AG HOUSE GARAGE 1 ACRE-AG PRESERVE' parcels are Assessment Code F with a Zone of A. The above information was gathered through personal communication with the Dakota County Assessor's office.

and compares them to the more simply classified 2005 parcel land uses. Also, prior to 2008 (i.e. in the 2005 dataset), 'rural vacant land' was lumped with agricultural land in the Scott County data. Afterwards, due to changes made in assessment and classification 'rural vacant land' has been assigned its own tax classification (2b) and its own GRM code (211 Rural Vacant Land). In order to make the analysis consistent, rural vacant land was included in the 2010 data set as agricultural land, otherwise its omission by way of changes in classification would result in inaccurate conclusions regarding the changes in farmland in Scott County.

Defining 'Agricultural Parcel'

The term agricultural parcel is used throughout this report, particularly in Section II, to signify any parcel of land whose value in the field "USE_DESC1" in the GIS datasets is populated as agricultural in nature. This field was, in turn, categorized by GIS programmers based on each parcel's tax assessment classification, the specific methods and process for which are described above. While a parcel might be labeled with a primary land use of agriculture, it is important not to conflate the term 'agricultural parcel' with actively productive farmland.

Farmland in the strictest sense is best described by the tax classification code 2a, which The Minnesota Property Tax Administrator's Manual describes as,

"Parcels of property, or portions thereof that are agricultural land and buildings. Class 2a land may be homestead or non-homestead depending on ownership, occupancy and active farming scenarios...Minnesota Statutes, section 273.13, subdivision 23, provides a number of requirements that must be met in order to be classified as class 2a land:

1. At least 10 contiguous acres must be used to produce agricultural products in the preceding year (or be qualifying land enrolled in an eligible conservation program);
2. The agricultural products are defined by statute; and
3. The agricultural product must be produced for sale."³

Despite this definition, there is a large contingent of parcels classified as agricultural in the GIS datasets less than 10 acre in size. What accounts for these smaller agricultural parcels?

First, the Property Tax Administrator's Manual notes that there are a variety of situations in which smaller parcels can be classified as 'Class 2a Agriculture.'⁴ In addition, a document provided by the Scott County Assessor's Office shows how the current GRM Class Codes for agriculture (mainly the GRM code '200 Agricultural') encompass a range of tax classifications outside of Class 2a land. A few of many additional tax classifications included under the '200 Agricultural' GRM code include

³ See Minnesota Property Tax Administrator's Manual, Module 3, p. 15, http://taxes.state.mn.us/property_tax_administrators/pages/other_supporting_content_propertytax_administratorsmanual.aspx.

⁴ See Minnesota Property Tax Administrator's Manual, Module 3, p. 15-20.

Class 4bb2 (a single-family dwelling, garage, and surrounding one acre of property on a non-homestead farm), Class 1d (migrant housing, structures only), Class 2c (managed forest land, and many more.⁵

Thus, many parcels have been classified under agricultural GRM codes if their purpose, use, or affiliation is primarily agricultural, even if they do not meet every criteria necessary to be considered Class 2a productive farmland. While consolidating this range of tax classification statuses into a general ‘agriculture’ category complicates the analyses in some ways, in other ways it gives a more accurate picture of the broader ranges of land that are engaged in agriculture-related activities.

An Introduction to Scott and Dakota Counties (FLAG TO COMPLETE**)**

- Basic info on each county (location, population, economy, etc.)
- Why choose for this study? Geographic proximity. Similar development pressures. Alternate land use and ag. preservation policies.
- Quick review of each counties’ land use and agricultural preservation policies.

Section I: Loss of Agricultural Land Area, 1990-2000

Statewide

At least two indicators are available that give an overall statewide look at the total areas and percentages of agricultural land cover in Minnesota between 1990 and 2000. These include the aforementioned dataset made available by the Minnesota Geospatial Information Office and the USDA’s Farm Census data made available through Quickstats v1.0.⁶

Data Source	Agricultural Land in MN, 1990 (thousand acres)	Agricultural Land in MN, 2000 (thousand acres)	Area Lost (acres)	Percent Lost
MN Geo	26,775	23,543	3,232	12.07%
USDA	30,000	27,900	2,100	7%

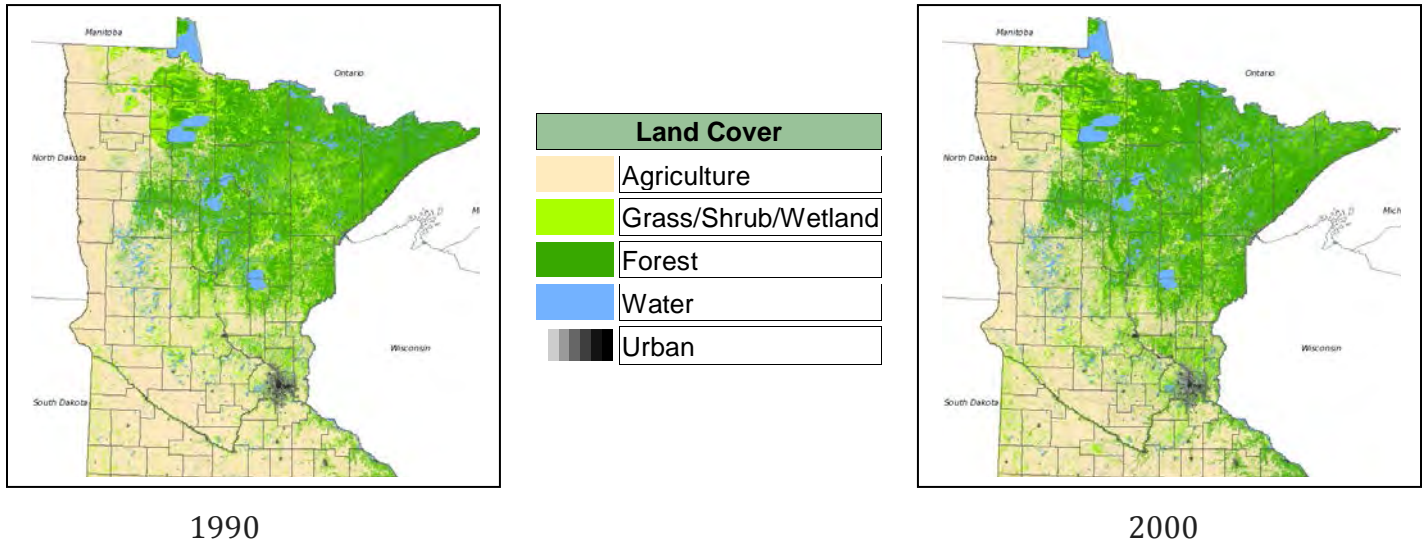
The two datasets show a divergence of over three million acres classified as agricultural. Furthermore, the USDA’s higher estimate shows the lesser estimated loss of just over two million acres over the decade whereas the lower estimate shows a greater loss of over three million acres. While varying methodology is likely

⁵ A document is available by the Scott County Assessors office showing which GRM class codes incorporate which tax classification categories. The definitions of those categories are available in the Minnesota Property Tax Administrator’s Manual.

⁶ MN Geo statewide data is available at http://land.umn.edu/maps/impervious/landbrowse.php?year_imp=1990&type=county&county= and USDA Farm Census Data is available at http://www.nass.usda.gov/Data_and_Statistics/Quick_Stats/index.asp.

the cause of such a wide gap and caution should therefore be taken in comparing the two datasets, both independently confirm a statewide trend of dwindling farmland. Using these two datasets as a range, a conservative assessment would simply say that Minnesota as a state lost between 7-12% of its overall agricultural land area between 1990 and 2000.

Below are statewide maps showing land cover between 1990 and 2000.



Scott County

The Minnesota Center Geospatial Information Office's dataset allows a closer examination of Minnesota counties for the time period in question. The tables below show totals land cover between 1990 and 2000 for Scott County.

Land Cover ⁷	Acres, 1990	Percent of Land, 1990	Acres, 2000	Percent of Land, 2000	Acre Change	Percent Gain/Loss
Agriculture	159,492	67.72	108,309	45.99	-51,183	-32.09
Grass/Shrub/Wetland	39,228	16.66	54,460	23.12	15,232	38.83
Forest	10,908	4.63	32,509	13.8	21,601	198.03 ⁸
Water	6,683	2.84	7,466	3.17	783	11.72
Urban	19,204	8.15	32,776	13.92	13,572	70.67

⁷ The definitions of the land cover classifications can be found at http://land.umn.edu/methods/landcov_class.html and an Accuracy Assessment of the dataset is available at <http://land.umn.edu/methods/accuracy.html>. This page estimates the accuracy for each year's data separately (estimated at 86% for both the 1990 and 2000 impervious surface maps), and an estimate of 74% for the accuracy of estimating change between 1990 and 2000 based on this data (derived by multiplying the estimated accuracy of the two years together).

⁸ It is unknown to the author's knowledge whether this is an accurate representation of change in forest cover in Scott County between 1990 and 2000, or what would account for such a large increase.

Between 1990 and 2000, Scott County lost roughly one-third of its agricultural land base. In absolute area terms, this was a loss of over 50,000 acres. This loss was accompanied by a 70% increase of urban land cover. Because agriculture accounted for over two-thirds of land in Scott County as of 1990, even after this steep loss agriculture remained as the largest single category in 2000, covering nearly half the county's total land.

Dakota County

Land Cover	Acres, 1990	Percent of Land, 1990	Acres, 2000	Percent of Land, 2000	Acre Change	Percent Gain/Loss
Agriculture	248,316	66.22	186,122	49.64	-62,194	-25.05
Grass/Shrub/Wetland	35,687	9.52	47,767	12.74	12,080	33.85
Forest	19,859	5.3	44,783	11.94	24,924	125.50 ⁹
Water	10,224	2.73	10,184	2.72	-40	-0.39
Urban	60,877	16.23	86,116	22.97	25,239	41.46

During the same time period Dakota County lost 25% of its agricultural land area. The county also saw an increase in urbanization, with 41% more land area classified as urban in 2000 than in 1990. By the year 2000, Dakota County also remained with agriculture as roughly one-half the land cover of the total county area.

Comparison

Overall, both counties show trends of a steep loss of farmland over the decade with a corresponding increase in urbanization. The two counties are, in fact, quite similar over this decade. Both counties began in 1990 with roughly two-thirds of their over land area in agriculture. Both Scott and Dakota Counties lost a large portion of their agricultural land cover over the decade (one-third and one quarter, respectively). Though Dakota County had a lesser proportional loss of agricultural land compared to Scott County, because Dakota started with a higher absolute number of acres in agriculture (248, 316 acres in 1990), the absolute loss of 62,194 acres in Dakota County was greater than in Scott County. **Thus while a greater area of farmland was lost in Dakota County, proportional to their original agricultural land bases Scott County had a much greater loss.**

These losses in farmland corresponded with urbanization in both counties. **Scott County experienced a much higher proportional degree of urbanization (a 70% increase) compared to Dakota County (a 41% increase).** Interestingly, nearly all other categories of land cover, all of which are natural resource-based

⁹ Again, it is unknown whether this is an accurate representation of change in forest cover in Dakota County between 1990 and 2000, or what would account for such a large increase.

(Grass/Shrub/Wetland, Forest, and Water), increased over the decade, the cause for which is unclear.

On the whole, this data shows that both counties entered the 21st century with a trend of decreasing farmland in generally comparable proportions and increasing total urban area. This analysis also shows that even in the 1990's Scott County was hemorrhaging farmland at a higher rate than Dakota County, which is a trend that continues in the following decade.

Section II: Loss of Agricultural Land, 2005-2010

Scott County

The table below represents changes in total number of agricultural parcels and agricultural land area in Scott County between 2005 and 2010.

Category	2005 Totals	2010 Totals	Loss/Gain	Percent Change*
Total Parcels	52989	55121	2132	4.02%
Total Land Area (acres)	214849	215191	342	0.16%
Total Ag Parcels	3630	3159	-471	-12.98%
Total Ag Area (acres)	130055	123770	-6285	-4.83%

*In terms of 2005 land base

During this time Scott County experienced a contraction in both agricultural area and total number of agricultural parcels, losing roughly 5% of all land classified as agricultural and 13% of its agricultural parcels. In addition, average agricultural parcel size rose from 35.8 acres in 2005 to 39.2 acres in 2010.

Also, between 2005 and 2010 land parcelized in Scott County by 4%.

Parcelization is the division of parcels in a given area into a larger number of smaller parcels. A 4% parcelization indicates that over this 5 year period land was broken up into smaller parcels resulting in 4% more parcels in 2010 than existed previously in 2005.

Parcelization is an important trend receiving growing attention among planners and natural resource professionals because of its relationship to development. To some it represents the repackaging of the land in a way that both reflects and favors a transition away from a reliance on agriculture and natural resource extraction toward residential and other development. In a 2007 paper from the University of Wisconsin, Rice & MacFarlane write, "It is through parcelization that the land resources are refined and packaged for wholesale and retail consumption as real estate.

The characteristics of parcels can have significant impacts on the uses available to a parcel owner. Parcel size is often a critical factor: a parcel too small is impractical to manage for farming or forestry, while parcels that are too large may be impractical for

housing or other consumptive uses.”¹⁰ Thus the degree of parcelization is included as an indicator that is both a result of increased development and a factor likely to influence future development trends.

Loss of Agricultural Land in Scott County by Parcel Size

The loss of agricultural parcels in Scott County was unequally distributed amongst parcels of different sizes. The following section includes a breakdown of all agricultural parcels in 2005 and 2010, frequently referring to Appendix A which includes a series of charts and graphs on loss of agricultural land by parcel size in Scott County between 2005 and 2010.¹¹

The table in Appendix A (Figure 1) shows totals for loss of agricultural parcels by both number of parcels and total area. **While categories with the most predominant parcel losses were the 0-5, 5-10, and 10-20 acre categories (losing 41%, 22%, and 13%, respectively), Scott County also showed a significant 11% loss in parcels of 125 acres and larger.** Figure 2 shows the side-by-side overall change in parcel numbers in each category, while Figure 3 shows each category’s parcel loss percentage. **The result of these dynamics is a somewhat distributed total loss of farmland across categories.** Figure 5 in Appendix A breaks down total area losses and gains by category. While the preceding figure shows a higher percentage loss among parcel size categories of smaller sizes, the 75-125 and +125 acre categories account for the categories with the largest agricultural area losses due to their larger size. Lastly, Figures 5 and 6 show the percentage distribution of total agricultural parcels by size in 2005 and 2010, showing how parcel gains and losses change the county’s overall agricultural parcel distribution.

Dakota County

The table below represents changes in overall number of agricultural parcels and area of agricultural land in Dakota County between 2005 and 2010.

Category	2005 Totals	2010 Totals	Loss/Gain	Percent Change*
Total Parcels	134302	136353	2051	1.53%
Total Area (Acres)	375266	375347	81	0.02%
Total Ag Parcels	5746	4501	-1245	-21.66%
Total Ag Area (Acres)	205145	201027.9826	-4117	-2.01%

¹⁰ McFarlane, D. & Rice, K., "Integrating Landscape Amenities with Historic Parcelization Trends to Better Target Landscape Conservation Efforts" *Paper presented at the 48th annual conference of the American Collegiate Schools of Planning, Milwaukee, WI, October, 2007*, p. 3.

¹¹ A note on methodology, parcel sizes were chosen somewhat arbitrarily, except for the value of 35.7 acres that divides two categories. This was the average farm size in 2005, thus it was chosen to separate loss of agricultural parcels that were smaller than the 2005 average and those that were larger.

* in terms of 2005 land base

Land parcelization also occurred in Dakota County, resulting in 1.5% more parcels in 2010 than in 2005. This indicates a lesser but still prevalent general trend in Dakota County toward the conversion of larger parcels to smaller and more numerous parcels.

Between 2005 and 2010 Dakota County saw a 21.7% decrease in the number of parcels classified as agricultural. However, despite the loss of one-fifth of its agricultural parcels, Dakota County only saw a 2% decrease in total agricultural land area from 2005 to 2010. Average agricultural parcel size has also increased in Dakota County from 36 to 45 acres during the period of study. Thus a more complex shift has occurred in which average parcel size has increased, the number of agricultural parcels has been drastically reduced, but the total area of land classified as agricultural has stayed relatively constant.

Loss of Agricultural Land in Dakota County by Parcel Size

As in Scott County, the loss of agricultural parcels was unevenly distributed among parcels of different sizes. The charts and graphs in Appendix B show breakdowns of agricultural parcels in Dakota County by parcel size 2005 and 2010.

Figures 1 and 2 show that the only categories that saw an absolute increase in number of parcels were those in the 20-36.69 and 35.7-74.99 acre categories, and were very minor increases of only several parcels. All other categories of parcel sizes saw a decrease in total number of parcels.

Most significantly, Figure 2 shows a drastic decrease in parcels between 0 and 4.99 acres in size between 2005 and 2010. **The number of agricultural parcels in Dakota County smaller than five acres fell 64% from just under 1900 parcels in 2005 to less than 700 parcels in 2010.** Otherwise, the number of parcels in other categories has stayed relatively constant.

This drastic decrease in the number of small parcels has shifted the overall proportion of agricultural parcels between 0-4.99 acres from 33% of all agricultural parcels in 2005 to only 15% in 2010. In terms of overall percentage this shifted the proportion of parcels over 125 acres from 22% in 2005 to 28% in 2010, now the largest category. These dynamics are displayed in figures 3, 5, and size of Appendix B. **Although roughly 1200 agricultural parcels were lost from 2005 to 2010, because the majority of these parcels were very small, this accounts for how Dakota County was able to lose 22% of its parcels while only losing 2% of its agricultural land.** As Figure 4 in Appendix B displays, while the vast majority of parcels lost were in the smallest category, their minute size in comparison with an 8% loss among farms of 125 acres and over greatly concentrates most of the total area lost in the largest parcel size categories.

Conclusion

Between both time periods examined, Scott and Dakota Counties experienced overall losses in agricultural land, the primary difference is only to what degree. Between 1990 and 2000 Scott and Dakota Counties lost one-third and one-quarter of their overall agricultural land base, respectively, and saw an increase in urban areas of 70% in Scott County and 40% in Dakota County. Considering that the statewide figure show a 7-12% loss of agricultural land across the state, this indicates that Scott and Dakota Counties lost agricultural land during this decade at over twice the statewide rate. When comparing the counties to each other, this decade shows the trend that continues in the latter time period in which Scott County is losing more agricultural land at a higher rate than Dakota County.

The greater detail given to the second time period (2005-2010) shows how both counties continue to lose agricultural land but diverge in important respects. Both counties experienced overall land parcelization, but again more so in Scott County (4%) than in Dakota County (1.5%). Scott County lost 13% of its overall agricultural parcels accounting for 5% of its agricultural land area whereas Dakota County lost 22% of its agricultural parcels accounting for only 2% of its overall agricultural area. These trends are supported by an overall increase in average agricultural parcel size in both counties. This increase was greater in Dakota County (a shift from a 36 to a 45 acre average) than in Scott County (a shift from a 36 to a 39 acre average).

The analysis of agricultural parcel loss by size shows important and complex trends of small farm loss. When broken into size categories, both counties showed the greatest losses among agricultural parcels of smaller sizes. This loss of small parcels was particularly evident in Dakota County, which lost over 60% of its 0-5 acre agricultural parcels between 2005 and 2010. While Scott County also sustained heavy losses in smaller parcel size categories, these losses were more distributed across categories.

The question of parcel size was examined in greater depth in Dakota County, and the results show a massive loss of the smallest agricultural parcels compared to losses in parcels of larger sizes. Between 2005 and 2010 Dakota County experience a 64% drop in agricultural parcels less than 5 acres in size. This is what accounts for a 22% loss of agricultural parcels while only a 2% loss of overall land classified as agricultural. Thus, the data shows that Dakota County stemmed the tide of agricultural loss compared to Scott County during this time period. However, while the county lost less overall agricultural land compared to Scott County, it lost a great deal of its overall parcels, particularly the smallest ones.

Scott and Dakota Counties are a relevant case study for changes in agriculture in Minnesota and in the U.S. at large for a number of reasons. Both are counties in an expanding metropolitan region with intense development pressure. Agriculture is still an important economic component and much of both counties' land is devoted to agriculture-related activities. At least one area where Scott and Dakota counties

diverge, however, is on their varying land use policies and agricultural preservation programs. (***)MORE FLAG COMMENTARY HERE(***)

Further research would be needed to suggest causal agents for the loss of farmland in both counties. Any future policy analysis should examine these trends that could be the cause of divergent experiences in loss of farmland between Scott and Dakota Counties. The two counties might, for example, produce a different set of crops and other goods, thus leading to different strengths of their respective agricultural sectors. Economic conditions in the two counties outside of agriculture, such as general economic growth and residential development, might be pressuring the agricultural sector in different ways as well. In short, the loss of agricultural land is a complex phenomenon resulting from multi-faceted development pressure and economic conditions that cannot be attributed to any one policy or factor. However, the divergent local policies that address agricultural preservation in Scott and Dakota Counties must not be overlooked.

While diagnosing the causes of farmland loss in Minnesota requires further analysis, this report has shown that counties in the Twin Cities Metropolitan Area are steadily losing agricultural parcels and agricultural land. Within this overall trend is a notable emphasis in the loss of small agricultural parcels in both counties. If preserving their agricultural assets is a goal of policymakers in Scott and Dakota Counties, this analysis alone warrants a re-examination of local farm preservation policies.

Appendix A: Loss of Agricultural Parcels in Scott County, 2005-2010

Agricultural Parcel Size	Number of Ag. Parcels, 2005	Number of Ag. Parcels, 2010	Percent of Ag. Area Lost (%)	Total Ag. Parcels Lost	2005 Ag. Area (acres)	2010 Ag. Area (acres)	Percent of Ag. Area Lost (%)	Total Ag. Area Lost (acres)
0-4.99	659	388	41.12	271	1175	781	33.51	394
5-9.99	467	362	22.48	105	3978	3076	22.68	902
10-19.99	588	512	12.93	76	8594	7636	11.15	958
20-35.99	449	455	-1.34	-6	12107	12559	-3.73	-452
36-74.99	890	901	-1.24	-11	45002	44978	0.05	24
75-124.99	463	439	5.18	24	41606	39239	5.69	2367
125+	114	101	11.40	13	17592	15481	12.00	2111

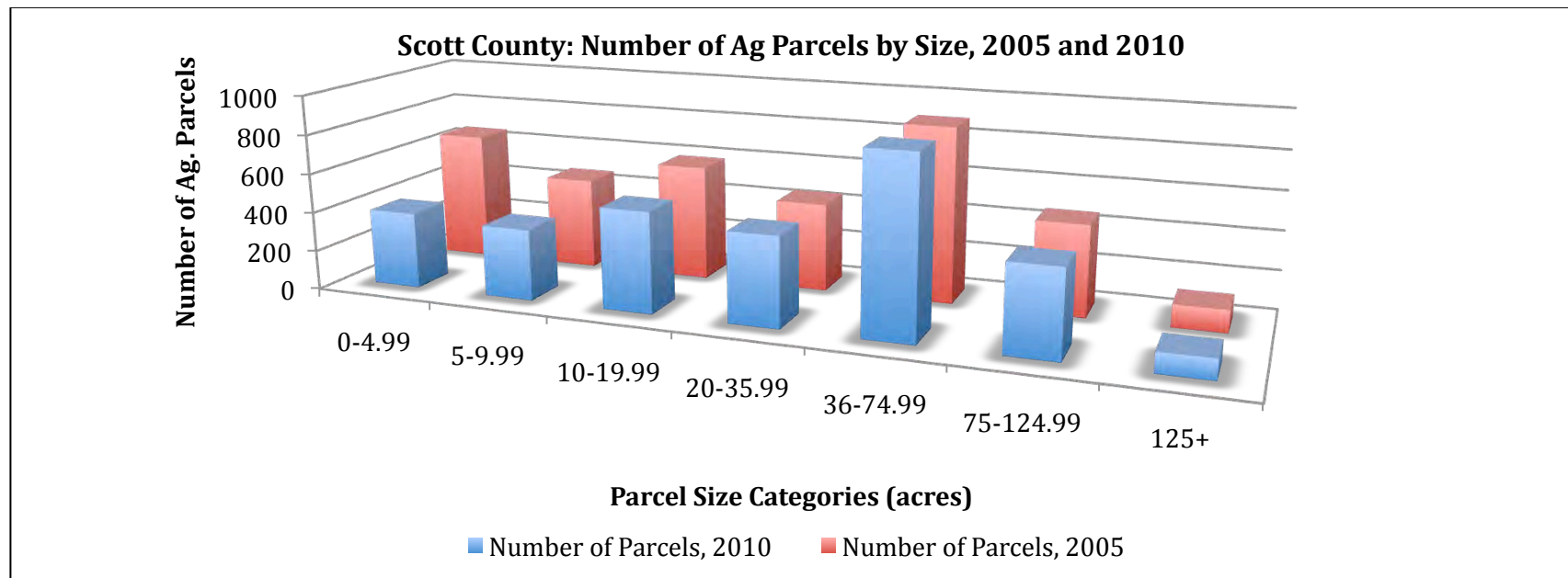


Figure 1

Appendix A: Loss of Agricultural Parcels in Scott County, 2005-2010 (continued)

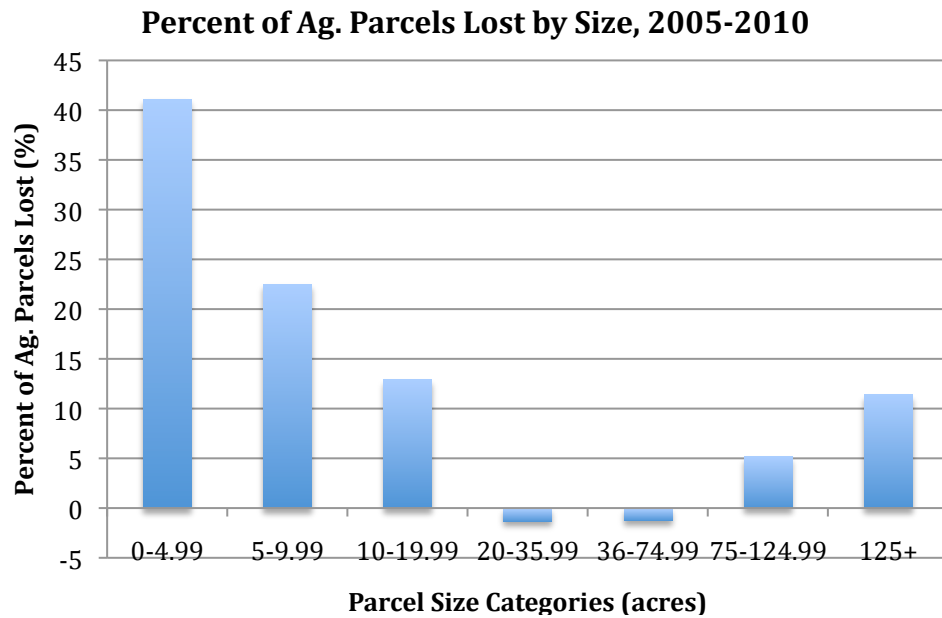


Figure 3

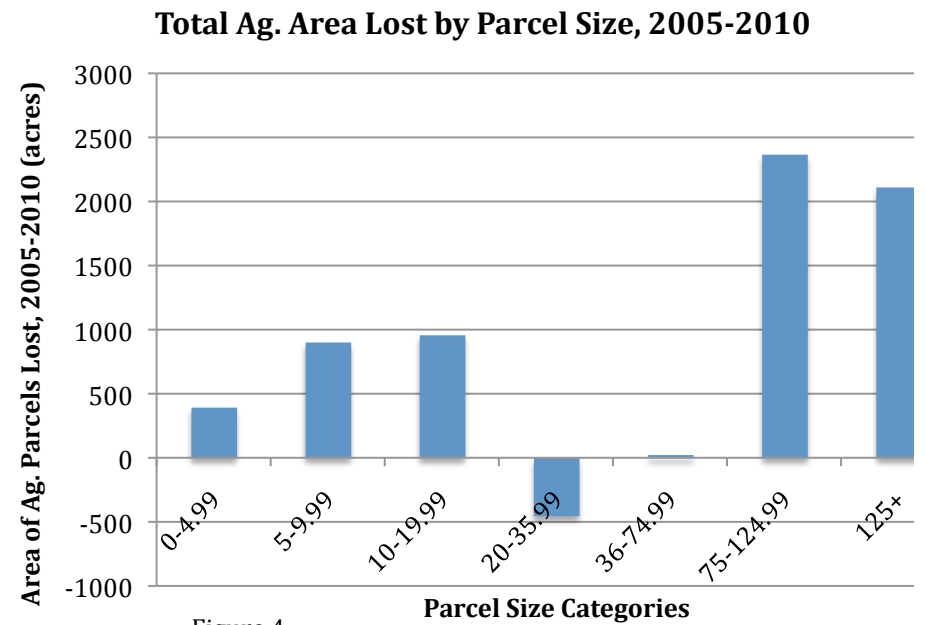
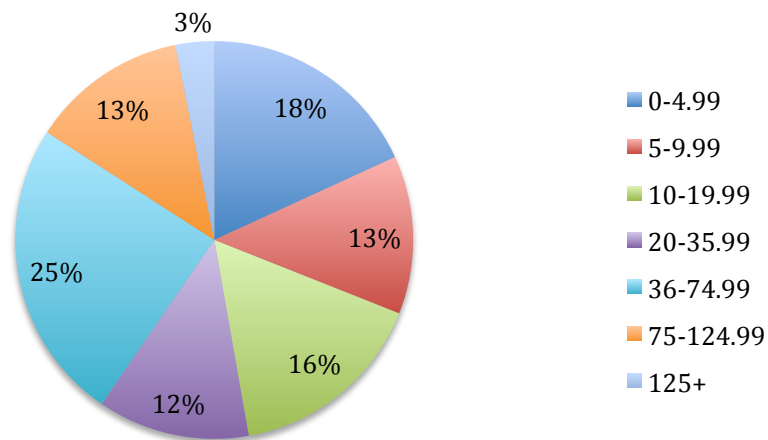


Figure 4

Number of Ag. Parcels by Size (acres), 2005



Number of Ag. Parcels by Size (acres), 2010

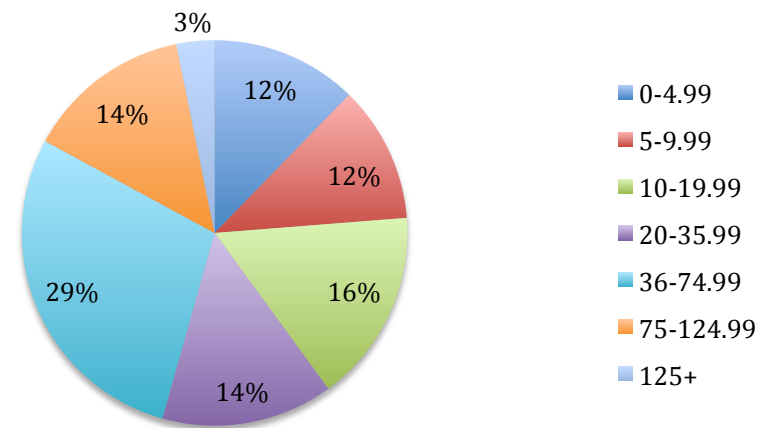


Figure 6

Appendix B: Loss of Agricultural Parcels in Dakota County, 2005-2010

Agricultural Parcel Size	Number of Parcels, 2005	Number of Parcels, 2010	Number of Ag. Parcels Lost	Percent of Ag. Parcels Lost	2005 Ag Area (acres)	2010 Ag. Area (acres)	Percent of Ag. Area Lost	Area of Ag. Parcels Lost (acres)
0-4.99	1897	677	1220	64.31	1941	1530	21.19	411
5-9.99	375	373	2	0.53	2872	2852	0.71	20
10-19.99	535	535	0	0.00	8073	8086	-0.15	-12
20-35.69	538	550	-12	-2.23	14897	15313	-2.79	-416
35.7-74.99	1277	1279	-2	-0.16	64497	64872	-0.58	-375
75-124.99	857	839	18	2.10	71597	70215	1.93	1383
125+	267	248	19	7.12	41268	38162	7.53	3106

Figure 1

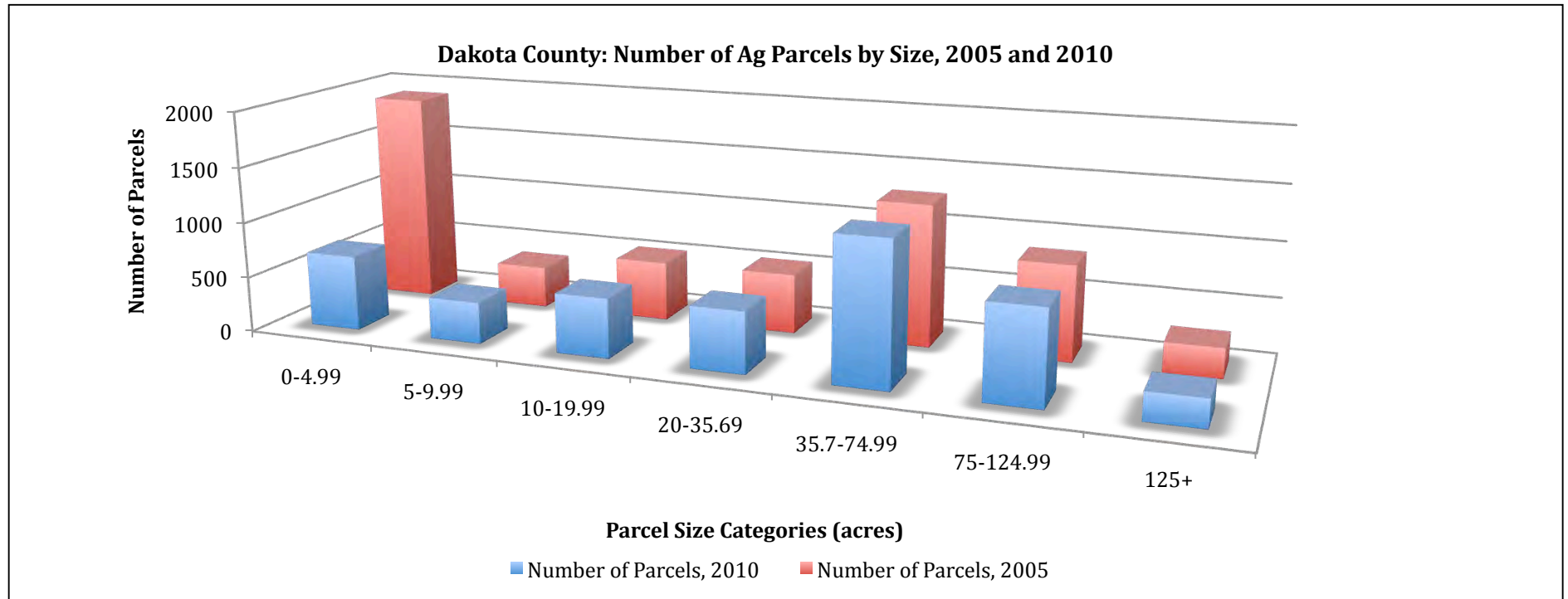
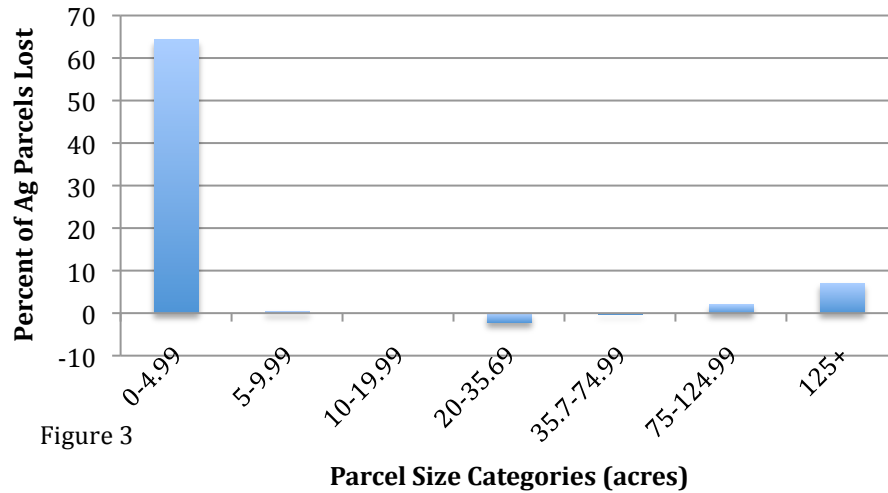


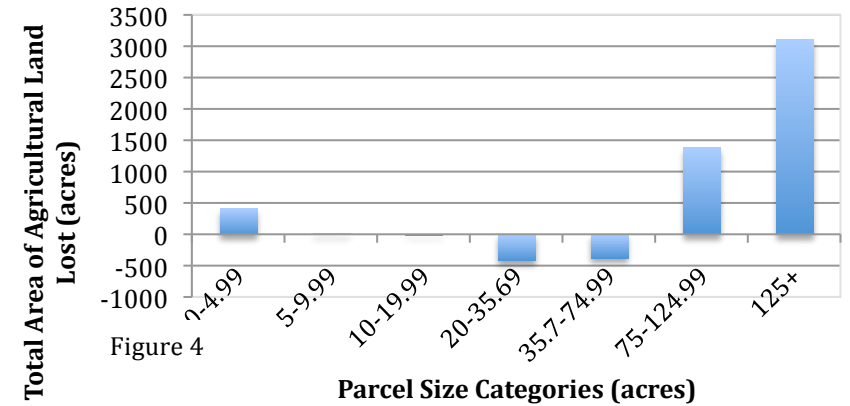
Figure 2

Appendix B: Loss of Agricultural Parcels in Dakota County, 2005-2010 (continued)

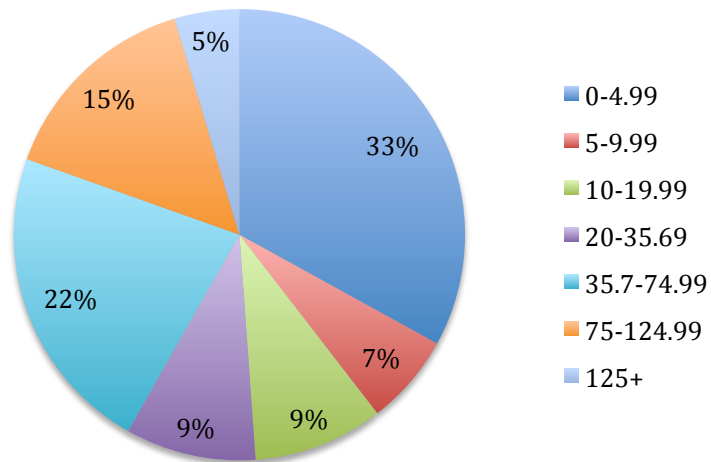
Percent of Parcels Lost by Size, 2005-2010



Area of Agricultural Area Lost, 2005-2010 (acres)



Number of Agricultural Parcels by Size, 2005



Number of Agricultural Parcels by Size, 2010

